

**DATES:** Comments on the draft recovery plan must be received on or before August 31, 1992 to receive consideration by the Service.

**ADDRESSES:** Persons wishing to review the draft recovery plan may obtain a copy by contacting the U.S. Fish and Wildlife Service, 3616 West Thomas, Suite 8, Phoenix, Arizona 85019. Written comments and materials regarding the plans should be addressed to the Field Supervisor at the above address. Comments and materials received are available on request for public inspection, by appointment, during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** Debra Bills, Fish and Wildlife Service Biologist; Telephone 602/379-4720 (see **ADDRESSES**).

**SUPPLEMENTARY INFORMATION:**

**Background**

Restoring an endangered or threatened animal or plant to the point where it is again a secure, self-sustaining member of its ecosystem is a primary goal of the U.S. Fish and Wildlife Service's endangered species program. To help guide the recovery effort, the Service is working to prepare recovery plans for most of the listed species native to the United States. Recovery plans describe site specific management actions considered necessary for conservation and survival of the species, establish objective, measurable criteria for the recovery levels for downlisting or delisting species, and estimate time and cost for implementing the recovery measures needed.

The Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), requires the development of recovery plans for listed species unless such a plan would not promote the conservation of a particular species. Section 4(f) of the Act, as amended in 1988, requires that public notice and an opportunity for public review and comment be provided during recovery plan development. The Service will consider all information presented during a public comment period prior to approval of each new or revised Recovery Plan. The Service and Federal agencies will also take these comments into account in the course of implementing approved recovery plans.

The Sonora chub is a threatened species and all of the existing populations are threatened. This fish inhabits intermittent streams in southwestern Arizona and Sonora, Mexico. Major threats include nonnative fishes and habitat degradation. Channel

degradation, siltation, and water pollution caused primarily by the livestock grazing, roads, and mining have also affected the habitat of the Sonora chub.

The Sonora chub draft recovery plan has been extensively reviewed. The plan will be issued as final following incorporation of comments and material received during this comment period.

**Public Comments Solicited**

The Service solicits written comments on the draft recovery plan described. All comments received by the date specified above will be considered prior to the approval of the plan.

**Authority:** The Authority for this action is section 4(f) of the Endangered Species Act, 16 U.S.C. 1533(f).

Dated: June 22, 1992.

James A. Young,

Acting Regional Director.

[FR Doc. 92-15528 Filed 7-1-92; 8:45 am]

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**Availability of Draft Recovery Plan for Sonora Chub for Review or Comment**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of document availability and public comment period.

**SUMMARY:** The U.S. Fish and Wildlife Service (Service) announces the availability for public review of a draft recovery plan for the Sonora chub (*Gila ditaenia*). This fish occurs in the United States in Sycamore Creek, Santa Cruz County, in southwestern Arizona near the international border and in adjacent Sonora, Mexico. The Service solicits review and comment from the public on this draft plan.

# 85-92

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**RIN 1018-AB66**

**Endangered and Threatened Wildlife  
and Plants; Threatened Status for the  
Plant *Thelypteris pilosa* var.  
*alabamensis* (Alabama Streak-sorus  
Fern)**

**AGENCY:** Fish and Wildlife Service,  
Interior.

**ACTION:** Final rule.

**SUMMARY:** The Service determines a plant, *Thelypteris pilosa* var. *alabamensis* (Alabama streak-sorus fern), to be a threatened species under the authority contained in the Endangered Species Act (Act) of 1973, as amended. *Thelypteris pilosa* var. *alabamensis* is currently believed to be limited to a 3.25 mile stretch along the Sipsey Fork, a tributary of the Black Warrior River in Winston County, Alabama. In this area, 15 separate localities have been documented. This species is extremely vulnerable due to its limited distribution. Populations have been impacted or are potentially threatened by impoundments, bridge construction, vandalism and incidental damage from recreational use of habitats, and timbering of forest upslope. This action will extend the Act's protection to *Thelypteris pilosa* var. *alabamensis*.

**EFFECTIVE DATE:** August 7, 1992.

**ADDRESSES:** The complete file for this rule is available for public inspection, by appointment, during normal business hours at the Jackson, Mississippi Field Office, U.S. Fish and Wildlife Service, 6578 Dogwood View Parkway, Suite A, Jackson, Mississippi 39213.

**FOR FURTHER INFORMATION CONTACT:** Cary Norquist at the above address or telephone (601/965-4900 or FTS 490-4900).

**SUPPLEMENTARY INFORMATION:****Background**

*Thelypteris pilosa* var. *alabamensis* is a small, evergreen fern with linear-lanceolate fronds 10 to 20 centimeters (cm) (4 to 8 inches) long. The fronds appear clustered, arising from short, slender rhizomes covered with reddish-brown scales. The stipe portion of the frond ("petiole") is slender, erect to ascending, 1 to 3 cm (0.4 to 1 inch) long, and covered with long hairs. The blade is typically 3 to 10 cm (1 to 4 inches) long, 1.5 to 3 cm (.05 to 1 inch) broad, and divided once into many ovate to suborbicular leaf segments (pinnae). The sori (groups of spore-producing reproductive structures) occur on the underside of the blades and are linear in shape. This is the only southeastern species of *Thelypteris* which lacks indusia (thin membrane that covers the sori) (Kral 1983, Mickel 1989).

This variety was first described by Crawford (1951) based on material that he and A.M. Harvill collected in 1949 along the Sipsey Fork of the Black Warrior River (Winston County, Alabama). Two specimens from the Mexican States of Chihuahua and

Sonora were cited in Crawford's description as belonging to this variety. These specimens, and other *Thelypteris pilosa* specimens from Mexico, have been recently examined by Mickel (1989) and Alan Smith (*Thelypteris* authority, University of California at Berkeley, pers. comm. 1990). They concluded that the Alabama plants are distinct (at least at the varietal level) from the Mexican material, including those specimens from Chihuahua and Sonora, cited in the original description by Crawford (1951). *Thelypteris pilosa* var. *alabamensis* differs from *Thelypteris pilosa* var. *pilosa* (a species relatively common in Mexico and extending south to Guatemala and Honduras) by its overall smaller size, narrower blades, rounded (versus acuminate) pinna and pinna lobe tips, and the frequent free lobe at the base of the basal pinnae (Lellinger 1985, Mickel 1989). Studies are currently underway to determine if these differences warrant elevating *Thelypteris pilosa* var. *alabamensis* to the species' level (Mickel 1989).

In 1960, the type locality was destroyed by bridge construction and subsequent flooding in association with the completion of Lewis Smith Dam, located several miles downstream. The species was presumed to be extinct (Dean 1969) until 1972, when Alabama naturalist L. Smith rediscovered it approximately eight miles upstream (Short and Freeman 1978). Additional colonies were located in this general area in 1975 and 1976 by Short and Freeman (1978). Surveys to locate additional populations and delineate its range along the Sipsey Fork were conducted by Alabama Natural Heritage Program in 1990 (Gunn 1991). Currently, the species' known range is confined to an approximately 3.25 mile stretch along the Sipsey Fork, a tributary of the Black Warrior River in Winston County, Alabama. In this area, the Heritage Program has documented 15 localities. Approximately 50 percent of the sites support small populations (a dozen or fewer plants); three have moderate populations (20 to 75 plants); three have large populations (several hundred); and two have extensive populations (ca. 1,500 and 6,000) (Gunn 1991). A mid-1970's report of this species along the Sipsey Fork near the Lawrence and Winston County line (Short and Freeman 1978) has not been relocated, despite repeated attempts (Gunn 1991).

*Thelypteris pilosa* var. *alabamensis* takes root in crevices or on rough rock surfaces of Pottsville sandstone along the Sipsey Fork (Gunn 1991). Plants typically occur on "ceilings" of sandstone overhangs (rockhouses), on

ledges beneath overhangs, and on exposed cliff faces. These bluffs and overhangs are usually directly above the stream; however, some are located a short distance away from the river. Locations vary in slope aspect and shade coverage, from completely shaded to partially sunny on exposed bluff faces. The sites are kept moist by natural water seepage over the sandstone from up-slope runoff. Water vapor from the stream increases the humidity for those sites directly above the water or nearby. *Thelypteris pilosa* var. *alabamensis* grows among various bryophytes and is often associated with climbing hydrangea (*Decumaria barbara*), (*Thalictrum clavatum*, *Heuchera parviflora*, and the ferns *Osmunda cinnamomea*, *O. regalis*, and most notably, the Appalachian bristle fern (*Trichomanes boschianum*). Surrounding forest is of the hemlock-hardwood type and includes various cove-type hardwoods (Gunn 1991, Kral 1983).

All sites are within the boundaries of the Bankhead National Forest and the majority occur on U.S. Forest Service land. Several localities are on private inholdings.

Federal actions involving *Thelypteris pilosa* var. *alabamensis* began with Section 12 of the Endangered Species Act of 1973, which directed the Secretary of the Smithsonian Institution to prepare a report on those plants, considered to be endangered, threatened, or extinct. This report, designated as House Document No. 94-51, was presented to Congress on January 9, 1975. On July 1, 1975, the Service published a notice in the **Federal Register** (40 FR 27823) of its acceptance of the report of the Smithsonian Institution as a petition within the context of section 4(c)(2), now section 4(b)(3)(A), of the Act and of its intention thereby to review the status of those plants. On June 16, 1976, the Service published a proposed rule in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular plant species to be endangered species pursuant to section 4 of the Act. *Thelypteris pilosa* var. *alabamensis* was included in the Smithsonian petition and the 1976 proposal. General comments received in relation to the 1976 proposal were summarized in an April 26, 1976, **Federal Register** publication (43 FR 17909).

The Endangered Species Act Amendments of 1978 required that all proposals over 2 years old be withdrawn. A 1-year grace period was given to proposals already over 2 years old. In the December 10, 1979, **Fede**---

Register (44 FR 70796), the Service published a notice of withdrawal of the June 16, 1976, proposal, along with four other proposals that had expired. *Thelypteris pilosa* var. *alabamensis* was included as a category 2 species in a revised list of plants under review for threatened or endangered classification published in the December 15, 1980, Federal Register (45 FR 82480). This species was maintained in category 2 in the Service's updated plant notices of September 27, 1985 (50 FR 39526) and February 21, 1990 (55 FR 6184). (Category 2 species are those for which are listing as endangered or threatened species may be warranted but for which substantial data on biological vulnerability and threats are not currently known or on file to support a proposed rule.

The Service funded a survey in 1990 to determine the status of this species in Alabama. Additional water courses were surveyed; however, no populations were located outside an approximately 3 mile segment of the Sipsey Fork (Black Warrior River). A final report was received and approved by the Service in the spring of 1991. This report (Gunn 1991) and other information supported the proposed listing. The data demonstrated a limited distribution and potential threats to the species.

Section 4(b)(3) of the Endangered Species Act, as amended in 1982, requires the Secretary to make certain findings on pending petitions within 12 months of their receipt. Section 2(b)(1) of the 1982 amendments further requires that all petitions pending on October 13, 1982 be treated as having been newly submitted on that date. This was the case for *Thelypteris pilosa* var. *alabamensis* because of the acceptance of the 1975 Smithsonian report as a petition. In October of 1983, and succeeding years, the Service found that the petitioned listing of *Thelypteris pilosa* var. *alabamensis* was warranted, but that listing this species was precluded due to other higher priority listing actions and additional data were being gathered. On November 29, 1991, the Service published a proposal (56 FR 60957) to list *Thelypteris pilosa* var. *alabamensis* as a threatened species, constituting the final 1-year finding.

#### Summary of Comments and Recommendations

In the November 29, 1991, proposed rule and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. Appropriate Federal and State agencies, county governments, scientific organizations, and other

interested parties were contacted and requested to comment. A newspaper notice, inviting public comment, was published in the *Daily Mountain Eagle*, Jasper, Alabama, on December 15, 1991.

Five written responses to the proposed rule were received, including two from private individuals, and three from private organizations (Access Fund, Center for Plant Conservation, and Biodiversity Legal Foundation). The Access Fund (a climbing organization) requested additional information without stating an opinion on the proposed rule. The other four comments were in support of the listing. The two individuals also supplied additional background information on this species which has been incorporated into appropriate sections of the rule.

#### Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Thelypteris pilosa* var. *alabamensis* should be classified as a threatened species. Procedures found at Section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act were followed. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in Section 4(a)(1). These factors and their application to *Thelypteris pilosa* var. *alabamensis* (Mart. and Gal.) Crawford (Alabama streak-sorus fern) are as follows:

##### A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

The type locality, which is approximately 5 miles downstream of extant populations, was destroyed in 1960. The cliffs where the plants grew were leveled when a new bridge was constructed. The area was subsequently flooded with the completion of Lewis Smith Dam several miles downstream (Short and Freeman 1978, Burks *in litt.*). The impoundment inundated suitable habitat, and perhaps plants, upstream and downstream of the type locality (Gunn 1991). Currently, plants are located on both sides of a highway bridge over the Sipsey Fork (upstream of the reservoir's influence). Plants may have been destroyed by this bridge construction (Gunn 1991). Future road or dam construction along the upper reach of the Sipsey Fork poses a potential threat to extant populations.

Logging of woodlands above the occupied sites could adversely affect the

microhabitat needed by the fern. As noted in the "Background" section, the species is dependent on up-slope runoff and seepage to maintain the substrate moisture. Heavy timbering or clear-cutting could alter the area's hydrology by interrupting this natural seepage. Additionally, the loss of the canopy would increase ambient light and lower the humidity. Thus, timber removal would dehydrate the habitat and such could be detrimental to this fern (Gunn 1991, Kral 1983, Currie *in litt.*).

Overhangs or rockhouses are habitat for about 50 percent of the known populations of *Thelypteris pilosa* var. *alabamensis*. These areas are frequented by hikers, fishermen, and campers and are subject to vandalism. Two of the larger populations occur in rockhouses which are often used by humans, as evidenced by numerous footprints, abundant litter, and old campfires. Intentional or incidental damage caused by hikers and campers, in addition to the heat and smoke from campfires, threatens these populations (Gunn 1991).

##### B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

This species is not known to be in commercial trade. Over-collecting for any purpose would adversely impact this species due to its rarity and the small number of individuals at several sites. The fern's limited distribution makes it vulnerable to collectors and vandals.

##### C. Disease or Predation

No species specific diseases or predators have been identified. However, as in Factor B, disease or predation could have a serious adverse impact on the small and fragmented populations.

##### D. The Inadequacy of Existing Regulatory Mechanisms

This species is considered endangered by the Alabama Natural Heritage Program (Gunn, pers. comm. 1991) but receives no protection from State legislation. All sites are located along the portion of the Sipsey Fork of the Black Warrior River that has been assigned "Wild and Scenic River" status by 1988 Federal legislation. Those sites on Forest Service land are designated "recreational status", which requires certain management actions by Federal landholders. The managing agency must develop management plan for the wild and scenic corridor, including management recommendations for *Thelypteris pilosa* var. *alabamensis*.

which is identified as a sensitive species for Bankhead National Forest (BNF). Currently, no management plan or recommended action, for either the river or the fern, has been developed by the U.S. Forest Service (Gunn 1991). As a result, no formal protection is afforded to sites on BNF. Four (possibly six) of the sites are on private property where there is no protection.

#### *F. Other Natural or Manmade Factors Affecting its Continued Existence*

The greatest threat to this species is its extreme vulnerability due to its limited range and small number of plants at many of the sites (see "Background"). A single natural or anthropogenic disturbance could seriously reduce the population size and affect the species' viability. Catastrophic flooding through the narrow gorge could possibly scour all the occupied sites to such a degree that the size of the population would be significantly reduced. Sites near the water have few individuals (one to three plants), probably because of scouring from seasonal (as opposed to catastrophic) flooding. Severe drought would decrease the substrate moisture and be detrimental to this species. A local drought in 1990 appeared to kill individual plants at several localities (Gunn 1991).

As a natural erosional process, sandstone overhangs and bluffs periodically erode small and large sections. A site could be completely eliminated (including one with a large number of plants) if one such incident occurred (Gunn 1991).

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to list *Thelypteris pilosa* var. *alabamensis* as threatened. Threatened status seems appropriate since this species is not in imminent danger of extinction. However, this species is extremely vulnerable due to its restricted range and is likely to become endangered in the foreseeable future if protective measures are not taken. Critical habitat is not being designated for reasons discussed in the following section.

#### **Critical Habitat**

Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. The Service finds that designation of critical habitat is

presently not prudent for this species. Publication of critical habitat maps will increase public interest and possibly lead to additional threats to this species from collecting and vandalism. This species occurs at a limited number of sites and several are easily accessible and frequented by hikers and campers. Taking is an activity that is difficult to control and is only regulated by the Act with respect to plants in cases of (1) removal and reduction to possession of endangered plants from lands under Federal jurisdiction, or their malicious damage or destruction on such lands; and (2) removal, cutting, digging up, or damaging or destroying in knowing violation of any State law or regulation, including State criminal trespass law. Publication of critical habitat descriptions and maps in the **Federal Register** and local newspapers would make *Thelypteris pilosa* var. *alabamensis* more vulnerable and increase enforcement problems. The principal parties involved, including State/Federal agencies, have been notified of the location and importance of protecting this species' habitat. Protection of this species' habitat will be addressed through the recovery process and through the Section 7 jeopardy standard. Therefore, it would not now be prudent to determine critical habitat for *Thelypteris pilosa* var. *alabamensis*.

#### **Available Conservation Measures**

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against certain activities involving listed plants are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued

existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

All sites are located within the boundary for the Bankhead National Forest and the majority of the sites are on U.S. Forest Service lands. The Forest Service will consider this species regarding their activities on their lands. The Environmental Protection Agency will consider this species relative to pesticide (herbicide) registration. Currently, no other activities to be authorized, funded, or carried out by Federal agencies are known to exist that would affect *Thelypteris pilosa* var. *alabamensis*.

The Act and its implementing regulations found at 50 CFR 17.71 and 17.72 set forth a series of general prohibitions and exceptions that apply to all threatened plants. All trade prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.71, apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale this species in interstate or foreign commerce, or to remove and reduce to possession the species from areas under Federal jurisdiction. In addition, for endangered plants, the 1988 amendments (Pub. L. 100-478) to the Act prohibit the malicious damage or destruction on Federal lands and the removal, cutting, digging up, or damaging or destroying of endangered plants in knowing violation of any State law or regulation, including State criminal trespass law. Section 4(d) of the Act allows for the provision of such protection to threatened species through regulations. The protection may apply to threatened plants once revised regulations are promulgated. Certain exceptions apply to agents of the Service and State conservation agencies. The Act and 50 CFR 17.72 also provide for the issuance of permits to carry out otherwise prohibited activities involving threatened species under certain circumstances.

It is anticipated that few trade permits would ever be sought or issued because the species is not common in cultivation or in the wild. Requests for copies of the regulations on listed plants and inquiries regarding prohibitions and permits may be addressed to the Office of Management Authority, U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive,

room 432, Arlington, Virginia 22203 (703/358-2104).

### National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

### References Cited

- Crawford, L.C. 1951. A new fern for the United States. *Amer. Fern. Journ.* 41:15-20.  
Dean, B.E. 1969. *Ferns of Alabama*. 2nd ed. Southern University Press, Birmingham, AL. 222 pp.  
Gunn, S.C. 1991. An update on the status of *Thelypteris pilosa* var. *alabamensis*.

- Report to the U.S. Fish and Wildlife Service, Jackson, Mississippi. 18 pp.  
Kral, R. 1983. A report on some rare, threatened, or endangered forest-related vascular plants of the South. USDA, U.S. Forest Service, Tech. Publ. R8-TP2. 1305 pp.  
Lellinger, D.B. 1985. A field manual of the ferns and fern-allies of the United States and Canada. Smithsonian Inst. Press, Washington, D.C. 389 pp.  
Mickel, J.T. 1989. Current status of *Thelypteris Pilosa* var. *alabamensis*. Unpubl. man. 5 pp.  
Short, J.W., and J.D. Freeman. 1978. Rediscovery, distribution and phytogeographic affinities of *Leptogramma pilosa* in Alabama. *Amer. Fern. Journ.* 68:1-2.

### Author

The primary author of this rule is Cary Norquist (see ADDRESSES section) 601/965-4900 or FTS 490-4900.

### List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and

recordkeeping requirements, and Transportation.

### Regulation Promulgation

### PART 17—[AMENDED]

Accordingly, part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, is amended as set forth below:

1. The authority citation for part 17 continues to read as follows:

**Authority:** 16 U.S.C. 1361-1407; 16 U.S.C. 1531-1544; 16 U.S.C. 4201-4245; Pub. L. 99-625, 100 Stat. 3500; unless otherwise noted.

2. Amend § 17.12(h) by adding, in alphabetical order, the family Thelypteridaceae, and the following entry, to the List of Endangered and Threatened Plants:

### § 17.12 Endangered and threatened plants.

\* \* \* \* \*  
(h) \* \* \*

Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Thelypteridaceae—Marsh fern family:						
<i>Thelypteris pilosa</i> var. <i>alabamensis</i> . (= <i>Leptogramma pilosa</i> var. <i>alabamensis</i> ).	Alabama streak-sorus fern	U.S.A. (AL)	T	476	NA	NA

Dated: June 22, 1992.

Richard N. Smith,

Director, Fish and Wildlife Service.

[FR Doc. 92-15976 Filed 7-7-92; 8:45 am]

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